LIFT-505

BMF Lift Kit

Yamaha Drive
Gas or Electric

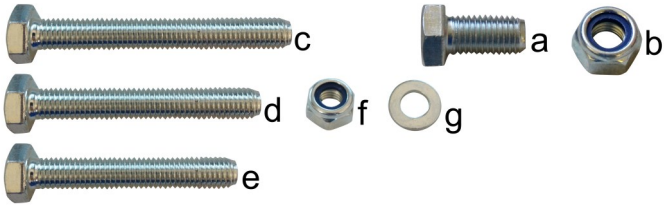
Installation Instructions

Contents of LIFT-505 Yamaha Drive BMF Lift Kit:

a	(1 ea.) BMF A-Arm Assembly
b	(1 ea.) Driver Side Shock Tower
c	(1 ea.) Passenger Side Shock Tower
d	(1 ea.) Driver Side Steering Knuckle
e	(1 ea.) Passenger Side Steering Knuckle
f	(1 ea.) Rear U-Bracket
g	(1 ea.) Connecting Rod Bracket
h	(2 ea.) Bags of Hardware (Contents on Next Page)
i	(1 ea.) Instructions

Caution: Please read through the instructions carefully. Installer is responsible for damage if instructions are not followed properly. Look behind each drill or cut location BEFORE YOU DRILL OR CUT. Installer is responsible for damage (i.e. drilling/cutting into a wiring harness, battery, fuel tank etc.). Extra installers will be helpful in some parts of the installation. Please refer to all torqueing specifications on page 2 for installation.

Note: You must install larger tires and wheels once the cart is lifted. Stock wheels will not work. We recommend a 22" tire with a minimum of a 10" offset wheel for use on the RHOX BMF Lift Kit.



Contents of LIFT-505 Hardware Kit:

ITEM	QTY.	DESCRIPTION	TORQUE REQUIREMENTS
a.	1 ea.	12mm x 25 Hex Head Bolt	69.00 ft. lbs.
b.	1 ea.	12mm Nylock Nut	-
c.	4 ea.	10mm x 80 Hex Head Bolts	38.25 ft. lbs.
d.	6 ea.	10mm x 70 Hex Head Bolts	38.25 ft. lbs.
e.	2 ea.	10mm x 60 Hex Head Bolts	38.25 ft. lbs.
f.	12 ea.	10mm Nylock Nuts	-
g.	24 ea.	10mm Flat Washers	-

NOTE: Cowl and body were removed for visibility purposes in the photos shown. The BMF lift kit can be installed with the cowl and body installed.

Installation Preparation (Front of the Cart)

1. Make sure the parking brake is engaged and the key is in the off position.
2. Electric Carts Only: If your cart has a Tow/Run Switch, place switch in the Tow position.
3. Remove the hub caps (if any). Loosen lug nuts on both front wheels. Do not remove lug nuts.
4. Chock the back of the rear wheels to prevent the cart from moving.

5. Using a jack, safely lift the front end of the cart enough to accommodate the additional height of the larger tires and wheels.
6. Place jack stands securely under the chassis and remove jack.
7. Fully remove the (8) front lug nuts, front tires and wheels. Discard the tires and wheels as they will not be reused.

4. Adjust the tow-in by loosening the jam nut then lengthen or shorten the tie rod by turning the hex shaped rod adjustment. Shortening the tie rods increases the tow-in, lengthening decreases it.

5. Once camber and tow adjustments are finalized and set, tighten all hardware and jam nuts.

6. Reinstall the front bumper using the Original Hardware.

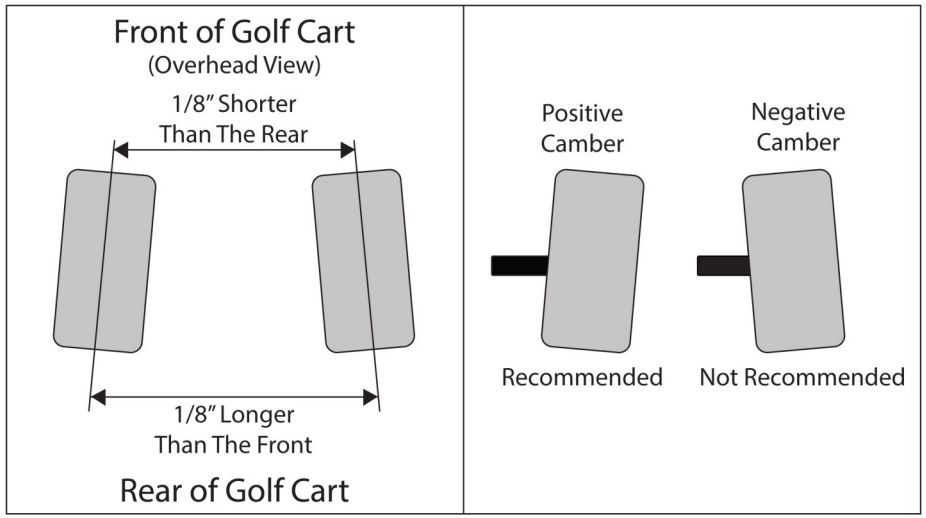
This completes the installation of your Yamaha Drive BMF Lift Kit. Please enjoy safely!

Watch this installation and others on YouTube:
www.youtube.com/user/GolfCartInstructions

Adjust the Tow-In and Camber

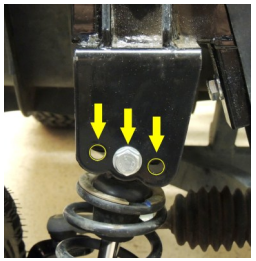
1. Drive forward and back 20-40 feet to check the tow-in and camber before making adjustments. Only make adjustments if needed.

   NOTE: For stability, an 1/8" tow-in with a positive camber is recommended. This will level out when the cart is loaded.



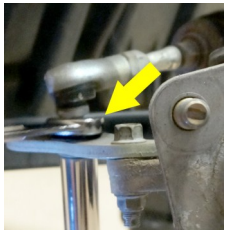
Tow-In Adjustment Camber Adjustment

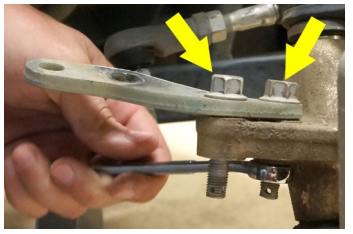
2. Adjust the camber by changing the mounting position of the shock in the shock tower. Mounting the shock to the outside of the cart will make the camber more positive. Mounting it to the inside of the cart will make the camber more negative.



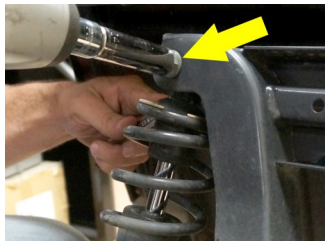
3. Calculate the tow-in of the front tires by measuring the center-to-center distance of the front of the front tires versus the center-to-center distance of the back of the front tires. The front measurement should be 1/8" shorter than the rear.

8. Remove the front bumper by removing the (2) bolts holding it in place. Retain bumper and hardware.
9. Disconnect the tie-rod ends from the steering knuckles by removing the safety pin and nut from the tie-rod end. Retain hardware.
10. Remove the steering knuckles from the spindles by removing the safety pins, nuts and bolts. Discard steering knuckles and hardware.





11. Remove the shock assemblies by removing the bolts connecting them to the cross frame and the A-arm. Retain shock assemblies and hardware.
12. Remove and discard the A-arms. Retain hardware.

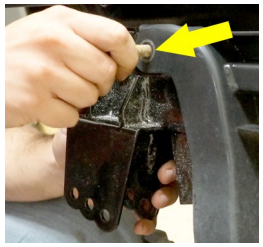


BMF Front Suspension Installation

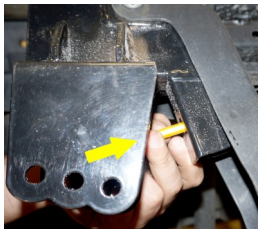
NOTE: Please refer to page 2 for torqueing specifications for included hardware. Please refer to vehicle's maintenance manual for torqueing specifications on reused hardware.

1. Identify the passenger side shock tower.
2. Insert the passenger side shock tower into the cross frame as shown. Push the shock tower upward and toward the cart; to the top of the cross frame.

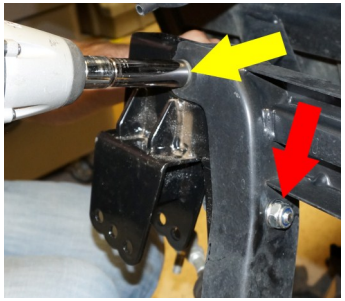
3. Align the hole in the shock tower with the hole in the cross frame as indicated in yellow. If needed, use a screwdriver to align the hole.
4. Insert the Original Bolt from the upper portion of the shock into the aligned hole.



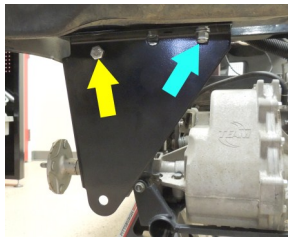
5. Insert a marking device through the thru holes in the shock tower as shown. Mark a drill location on the side of the cross frame.
6. Remove the bolt and shock tower from the cross frame.
7. Use a center punch and to mark the location of the hole.
8. Wearing safety glasses, drill a 1/8”-3/16” pilot hole through the cross frame at the marked location.
9. Drill a 13/32” hole through the pilot hole.
10. Reinsert the shock tower into the cross frame. Align mounting holes.

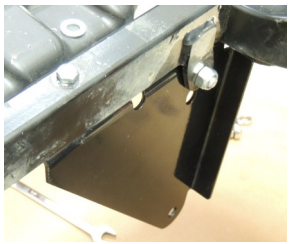


11. Install the shock tower by using the Original Hardware from the upper portion of the shock (yellow arrow) and (1) 10mm x 70 Hex Head Bolt, (2) 10mm Flat Washers and (1) 10mm Nylock Nut (red arrow).
12. Repeat Steps 1-11 for the driver side shock tower.
13. Position the new BMF A-arm assembly in front of the cart with the *RHOX* plate facing forward.
14. Loosen the (4) bolts on the mounting arms of the A-arm assembly for easier alignment.
15. Slightly spread the mounting tabs on the frame if needed for installation.



Head Bolt and (1) 12mm Nylock Nut (yellow arrow). Do not tighten.
15. Install the bracket to the chassis using (1) 10mm x 70 Hex Head Bolt, (2) 10mm Flat Washers and (1) 10mm Nylock Nut (blue arrow).
16. Tighten both sets of hardware from steps 14 and 15.



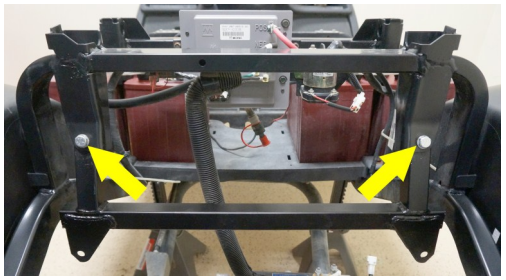


NOTE: For matching bolt heads in the bagwell area, a second set of 10mm hardware is included in the BMF lift kit. Repeat steps 10-11 for the passenger side if desired. This will not effect the lift kit.

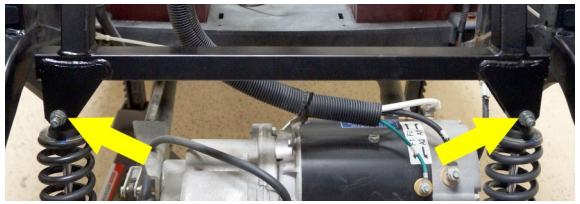
17. Reinstall the connecting rod to the new bracket and the original mounting tab using the Original Hardware.

18. Tighten any hardware left loose in this section.
19. If the cart is not high enough to accommodate the larger tires and wheels, raise the cart to the correct height with the jack.
20. Install the (2) rear tires/wheels on the rear hubs.
21. Remove the jack stands and lower the cart.
22. Remove the jack.

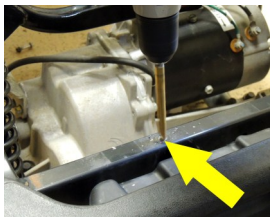
6. Identify the U-bracket. When oriented correctly, the bracket will be angled towards the front of the cart.
7. Slide the U-bracket into the original shock mounts. Install the U-bracket to the shock mounts using (2) 10mm x 60 Hex Head Bolts, (4) 10mm Flat Washers and (2) 10mm Nylock Nuts.



8. Slowly raise the rear axle until the top of the shocks reach the new shock mounts. Install the top of the shocks to the shock mounts using the Original Hardware.



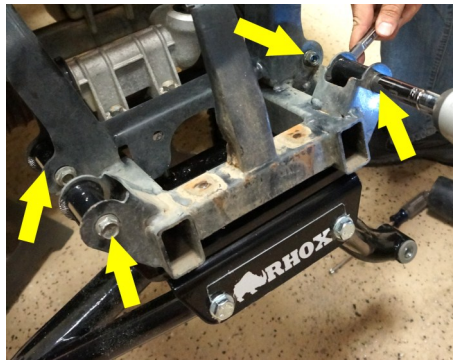
9. Reroute and reconnect any wires or cables removed in step 4. Use wire ties to secure them if needed.
10. Locate the two bolts in the bagwell area. Remove the bolt on the driver side.
11. Using the empty bolt hole as a guide, drill a 1/8" - 3/16" pilot hole completely through the chassis. Then drill a 13/32" hole through the pilot hole.



12. Orient the connecting rod bracket so the rounded corner is facing downward and is closer to the driver side of the cart.
13. Place the connecting rod bracket on the underside of the chassis and behind the original connecting rod mounting tab.
14. Install the bracket to the mounting tab using (1) 12mm x 25 Hex

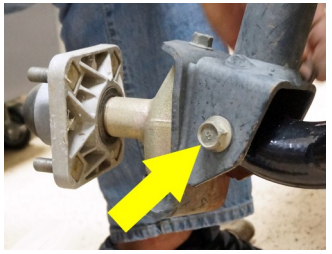
16. Using the Original Hardware, bolt the new BMF A-arm assembly to the chassis in the (4) places where the original A-arms were removed.

    NOTE: Additional help is recommended during this step to help support the A-arm assembly during installation.



17. Tighten the hardware loosened in Step 14. Keep the A-arm assembly aligned with the frame.
18. Mount the shocks to the shock towers using (1) 10mm x 70 Hex Head Bolt, (2) 10mm Flat Washers and (1) 10mm Nylock Nut per shock. It is recommended to install the shock in the center hole position to start. If the camber needs adjusting at the end of the installation, the position can be changed.

19. Using the Original Hardware, mount the bottom of the shocks to the BMF A-arms. A rubber mallet can be used to align the A-arm in the mounting tabs.
20. Attach the new passenger side steering knuckle to the top of the spindle using (2) 10mm x 80 Hex Head Bolts, (4) 10mm Flat Washers and (2) 10mm Nylock Nuts. Torque the bolts to the correct torque specifications shown on page 2.



21. Install the tie rod end to the steering knuckle using the Original Hardware.
22. Repeat steps 20-21 for the driver side steering knuckle.

23. Install the (2) front tires. The stock tires and wheels will not work on the newly lifted cart. Fully tighten the lug nuts on both wheels.

NOTE: It is recommended to use at least 22" tires on a 10" wheel with an offset. The wheel shown is a *RHOX* Vegas TIR-RX160 with a *RHOX* Mojave II tire, TIR-265A.

24. Once the tire and wheels are fully secure, place the jack under the cart. Remove jack stands and lower the cart safely to the ground. Remove the chocks behind the rear wheels.

NOTE: The front bumper will remain off until the camber and tow adjustments are made at the end of the installation.

Installation Preparation (Rear of the Cart)

1. Turn the key to the off position and lock the parking brake.
2. Electric Carts Only: If your cart has a Tow/Run Switch, place switch in the Tow position.
3. Chock the front of the front wheels to prevent the cart from moving.
4. Remove the rear access panel by removing the rivets and unclipping it from the body. Retain rivets.

5. Remove the hub caps (if any) on the rear wheels. Loosen the lug nuts on both wheels but do not remove the them.
6. Place a jack securely under the rear axle. Safely lift the rear end of the cart enough to accommodate the additional height of the larger tires and wheels.
7. Place jack stands under the chassis on both sides of the cart to stabilize it. Lower the jack but do not remove it.

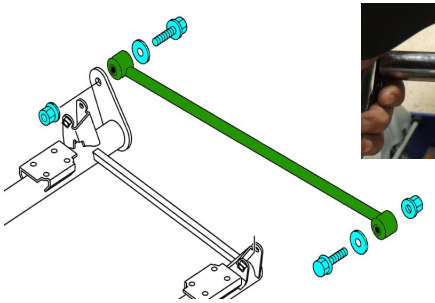
8. Fully remove the (8) rear lug nuts, rear tires and wheels. Discard the tires and wheels as they will not be reused.

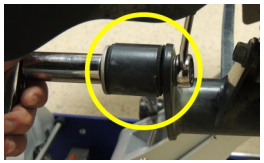
BMF Rear Suspension Installation

Safety Note:
Proper eye and mouth protection should be worn during this section to protect the installer from debris when working under the cart or drilling.

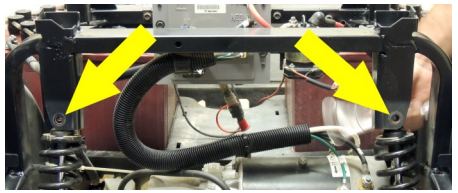
1. Carefully raise the jack to support the rear axle.

2. Disconnect the rear connecting rod by removing the (2) bolts, nuts and washers. Retain rod and hardware.

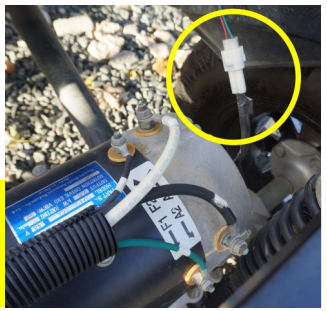




3. Disconnect the top of the rear shocks from the shock mounts. Retain hardware.



4. Disconnect any wires or cables attached to the motor that could be damaged when lowering the rear suspension.
5. With the cart in the Tow position, slowly and carefully lower the rear axle.



Safety Note: The electrical system could be damaged if the cart is NOT in the Tow position and a shock contacts the motor.